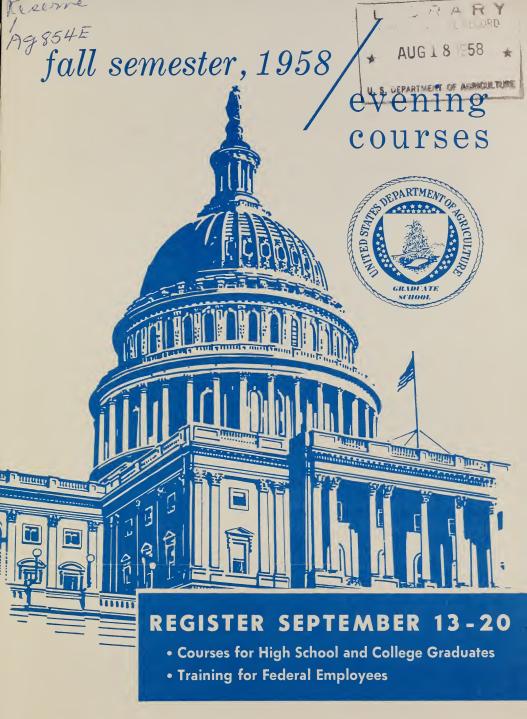
Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.





GRADUATE SCHOOL • U. S. DEPARTMENT OF AGRICULTURE

Independence Avenue, between 12th and 14th Streets, Southwest, Washington 25, D. C.

REGISTER SEPTEMBER 13-20 GENERAL INFORMATION

Registration Week: September 13-20, in the Patio (first floor) of the Administration Building, U. S. Department of Agriculture, 14th Street and Independence Avenue, S.W., Washington 25, D. C.

Saturdays 9-4 p.m.

Monday-Friday 11-6:30 p.m.

Procedures: Registration must be completed in person, or by someone acting for the registrant. Registration may not be completed by mail. Transcripts of previous educational records are not required, but graduation from high school, or the equivalent, is the general prerequisite for all courses. In addition, the more advanced courses have specific prerequisites. These are listed in the course descriptions contained in the catalog. Copies of the catalog are available in the personnel and training offices of agencies of the Federal Government and in the Graduate School office. Copies can also

be obtained at the time of registration.

Counseling: Members of the Graduate School staff are on hand for counseling, before

and during the registration period.

Fees: The charge for tuition is in general \$12 for each credit hour, payable at the time of registration. Arrangements may be made to pay one half of the tuition at that time, in addition to a \$1.00 service charge. The second payment is due by October 17.

Late Registration: After September 20, a \$2.00 late registration fee is charged for each

course. Late registrations will be accepted through October 3.

Course Transfers: Until October 3, students may transfer from one course to another without extra charge. After that date, there is a transfer fee of \$1.00, and transfers may be made only with the permission of the instructor concerned.

Federal Income Tax Deductions: According to the Internal Revenue Service regulation of April 5, 1958, expenses for education are deductible if undertaken for the purpose of

"maintaining or improving skills by the taxpayer in his employment."
Class Schedule: Classes begin the week of Monday, September 22, and end the week of

Monday, January 19. National Institutes of Health Program: Registration for classes to be held at National Institutes of Health, Bethesda, Maryland, may be completed at the Department of Agriculture during the week of September 13-20, or at the National Institutes of Health, Clinical Center, during the special registration week, September 22-27. Classes at NIH begin on Monday, September 29. A separate announcement of the NIH program is available at the Graduate School office, or in Room 13-N-228, Clinical Center, NIH, OLiver-6-4000, Extension 2427.

Veterans: Veterans who are applying for entrance to the Graduate School for the first time under Public Law 550 or 634 are advised to consult with the Registrar well in advance of registration week. This may assure that their certificates of eligibility from

the Veterans Administration will be granted in time for the semester.

Textbooks: Textbooks can be purchased at the Graduate School Bookstore, Room 1022, South Building, at the following times:

Registration Week, September 13-20 Saturdays, 9-4 p.m. Monday-Friday 1-6:30 p.m. First Week of classes, September 22-26 Monday-Friday 1-6:30 p.m.

September 29-October 10 Monday-Friday 4:30-6:15 p.m. Beginning October 13 Monday-Friday 4:30-5:30 p.m.

Withdrawals and Refunds: When a student withdraws from a course, a refund is granted in accordance with the following schedule:

Through October 3, tuition less \$5.00 for each course

October 6-17, 60 per cent of the tuition October 20-31, 50 per cent of the tuition

Notice of withdrawal must be made in writing to the Graduate School office. Forms are available for that purpose. Refunds are computed as of the date that notice of withdrawal is received in the Graduate School office. No refunds will be granted for any reason after October 31. The deadline for credit-audit changes is also October 31.

Parking Space—Cafeteria: Space for parking is available for students and faculty after 5:45 p.m. in three parking courts on the east and south sides of the Administration Building. The entrance to one court is on 12th Street, and to the other two on Independence Avenue. There is also parking space available on the Mall, north of the Administration Building.

The cafeteria, in the fifth wing of the South Building, is open from 5:00 to 6:30 p.m. Students should request cafeteria passes when they register if they plan to use the

cafeteria before 5:30 p.m.

Business Office Hours: The Graduate School office, Room 1031, South Agriculture Building, 14th Street and Independence Avenue, S.W., Washington 25, D. C., is open from 9:00 a.m. to 6:15 p.m., Monday through Friday. Telephone—REpublic 7-4142, Extension 6337.

SCHEDULE OF CLASSES

Course title (Cr.) Instructor Day Time Fee Catalog page No.

BIOLOGICAL SCIENCES

1-126. Disease Classification and Medical Terminology (2) Bollo Th 6:10-8 \$24 p. 15
1-427A. Physiology of Bacteria (First Half) (2) Saz W 6:10-8 \$24 p. 16
1-435. Recent Advances in Entomology (2) Hoffman and Specialists Tu 4:45-6:35
p. 16 (Meets at Plant Industry Station, Beltsville, Maryland) \$24

1-570A. Design of Experiments in Biological Sciences (First Half) (2) Koch Tu 4:45-6:30 \$24 p. 16 (Meets at Plant Industry Station, Beltsville, Maryland)

1-600.

Endocrinology (2) Bitman M 4:45-6:35 \$24 p. 16 (Meets at Agricultural Research Center, Beltsville, Maryland)

Advances in Animal Breeding and Genetics (2) Terrill and Warwick W 4:45-6:35 \$24 p. 17 (Meets at Agricultural Research Center, Beltsville, Maryland) 1-606.

> The following courses in the Biological Sciences meet at the National Institutes of Health, Bethesda, Maryland

1-250A. Introductory and General Bacteriology (First Half) (2) McCullough M 7:30-9:20 \$24 p. 103

1-628A. Advanced Bacteriology-Bacterial Metabolism (First Half) (2) Ellinghausen Th

7-9 \$24 p. 103
Introductory Virology (2) Rowe W 7-9 \$24 p. 104
General Mycology (2) Lentz M 6-8 \$24 p. 104
Human Physiology (3) Wolf W 6:30-9 \$36 p. 104 1-275.1-349.

1-422. 1-345. Biochemical Genetics (1) Ames M 6-7 \$12 p. 104

1-455A. Modern Cellular Physiology (First Half) (2) Shanes M 7:30-9:20 \$24 p. 105 1-505. General Pathology (2) Swarm M 5:30-7:30 \$24 p. 105

History of Medicine and Medical Research (2) Leikind Th 7-9 \$24 p. 105 1-305.

LANGUAGES AND LITERATURE

English-Grammar and Writing

2-95. Improving Reading Ability (non-credit) Fulker and Rollins M-Th 6:10-8 \$36 and \$15 laboratory fee p. 20 (12 weeks)

Practical English Usage (2) \$24 2-112. p. 21

2-119.

Practical English Usage (2) \$24 p. 21
Section I Mangold Tu 6:10-8
Section II Pritzker F 6:10-8
Vocabulary Building (2) Struhs Th 6:10-8 \$24 p. 21
English Composition (First Half) (3) Harmon M 6:10-8:40 \$36 p. 21
Descriptive English Grammar (3) Harman Tu 6:10-8:40 \$36 p. 21
Official Writing (2) Schaal Tu 6:10-8 \$24 p. 22
Written Word in Official Communication (2) McClarren M 6:10-8 \$24 p. 22
Fiction Writing (2) Arnold M 6:10-8 \$24 p. 22
Feature Writing (2) Sours W 6:10-8 \$24 p. 22
Feature Writing (2) Gilstrap and Fried M 6:30-8:20 \$24 p. 23
Government Letter Writing (2) Boyd Th 6:10-8 \$24 p. 49 2-222A. 2-223.

2-226.

2-227.

2-235. 2-280.

2-450.

Government Letter Writing (2) Boyd Th 6:10-8 \$24 p. 49 4-330.

Literature

2-330A. Great Books (First Half)—Reading List A (2) Ruppert Tu 6:10-8 \$24 p. 23 2-339. Literature of American Agricultural History (3) Rasmussen Tu 6:10-8:40 \$36 p. 24

Information Methods

Indexing (2) Kozak Tu 6:10-8 \$24 p. 24 2-220.

2-225. Principles of Editing and Their Application (3) George and Erhardt M-W 6:30-7:45 \$36 p. 25

2-412.

Editing Technical Manuscripts (2) Nolan M 6:10-8 \$24 p. 25
Preparing Publications for a Mass Audience (2) Feldman Th 6:30-8:20 \$24 p. 25
Problems in Editing—Seminar (3) Perlmutter W 6:10-8:40 \$36 p. 26 2-415.

2-430.

2-420. Communications Review for Executives (2) McClarren, Webster, McCormick, Krogh, Renaud W 6:10-8 \$24 p. 27

Library Techniques

2-139. Cataloging and Classification II (2) Birch W 6:10-8 \$24
2-137. Basic Reference Service and Reference Tools (2) Bonniwell
2-138. Introduction to Bibliographic Science (2) Popecki Th 7:10-9
2-145A. Law Librarianship (First Half) (2) Rothe M 6:10-8 \$24 p. 27 Tu 6:10-8 \$24 p. 27

\$24 p. 28

p. 28 Tu 6:10-8 \$24 p. 28 Information Practice in Science and Technology (2) Sherrod 2-150.

Speech

2-228.

2-229.

Fundamentals of Speech (2) Miller W 6:10-8 \$24 p. 28 Public Speaking (2) Nelson M 6:10-8 \$24 p. 28 Voice and Remedial Speech (2) Trachtman Tu 6:10-8 \$24 2-232. \$24 p. 28

(Schedule of Classes continued inside)

```
No.
                                 Course title (Cr.) Instructor Day Time Fee Catnlog jinge
                                                                                                                                                                                                                                                                                                                                                          Course little (Cr.) Instructor Day Time Fee Catalog page
     Foreign Longnoges
                                                                                                                                                                                                                                                                                                                                                  Biorhemistry of Protein Hoemones (2) Condiffe W 7-9 $2-1 p. 109
Chemistry of Biologically Important Sternids (2) Mosettig and Heftmann Th 6:10-8
$24 p. 109
     French
     2.68. Reading French—Grammar Review and Vocahulacy Bullding (non-credit) Vienn W 6:10-8 $24 g. 29
2.87. French (or Fravelers I (non-credit) Bargin W 6:10-8 $30 p. 29
2.253A. Elementary French (First Half) (3) Bargin Tu 6:10-8:40 $36 p. 29
2.254A. Intermediate French (First Half) (3) Bargin Th 6:10-8:40 $36 p. 29
2.255. French Convergation (2) Vienn Tu 6:10-8 $30 p. 30
                                                                                                                                                                                                                                                                                                                                                                                                        PUBLIC ADMINISTRATION
                                                                                                                                                                                                                                                                                                                                                 American National Government (2) Norhoso Th 6:10-8 $24 p. 64
Survey of Public Administration (2) Kriesberg Th 6:10-8 $24 p. 65
Conference Methods Workshop (2) Wright and tienderson M 6:10-8 $24 p. 65
Administrative Operations for Congressional Assistants (2) Eller W 6:10-8 $24 p. 63
(Meeth on Capitol Hill)
Human Itelations in Administration (3) Enneis Th 6:10-8;40 $36 p. 65
Lainr Management Relations in the Federat Government (2) Levitan M 6:10-8 $24
p. 66
                                                                                                                                                                                                                                                                                                                              6-400.
    German
    2.66A. Hending Scientific German (First Half) (non-credit) Lederer W 6(10-8)40 $36
                                                                                                                                                                                                                                                                                                                              ñ 166.
                        fleading Scientific German (Second Hulf) (non-credit) Lederer Th 6:10-8:40 $36
    2.66B.
                                                                                                                                                                                                                                                                                                                                                 p. 66
Management Connseling and Creative Staffwork (3) Benedict Th 6:40-8:40 $36
                                                                                                                                                                                                                                                                                                                              6.459,
                        German for Travelers (non-redlt) Bruer M 6:10-8 $30 p. 30 Elementary German (First Hnlf) (3) Lederer Tu 6:10-8:40 $36 p. 30 German Cunversation (2) Lederer M 0:10-8 $30 p. 30
   2,259A.
2,261.
                                                                                                                                                                                                                                                                                                                                                   Beadings and Papers in Public Administration (3) Thurston (Coordinator) To be
                                                                                                                                                                                                                                                                                                                                                  arrangeil $36 p. 67
Cummunirations Review for Executives (2) McClarren, Webster, McCormick, Krogh, Rennuil W 6:10-8 $24 p. 27
                                                                                                                                                                                                                                                                                                                               2-120,
    Italian
                         Halling Conversation and Grammar (non-credit) Bauer Th 6:t0-8 $30 p. 31
    2,345.
                                                                                                                                                                                                                                                                                                                                American History
   Portuguese
                                                                                                                                                                                                                                                                                                                               6:250. American Bistary to 1865. (3) Rasmussen Th 6:10-8:40 $36 p. 67
    2:290A, Elementary Portuguese (First Half) (3) Ornstein M 6:10-8:40 $36 p. 31
                                                                                                                                                                                                                                                                                                                               Organization and Management
  2-292B. Beading Scientific Russtan (Second Haff) (2) Soharov W 5:30-7:20 $24 u. 31 (Meets at U. S. Geological Survey)
2-295A. Elementary Bussian (First Half) (4) Tarakus Tu-Th 6:10-8 $48 u. 34 2-296A. Intermediate Russian (First Half) (3) Saharov Tu 0:10-8:40 $36 p. 31 2-299A. Advanced Russian (First Half) (3) Saharov Th 6:10-8:40 $36 u. 32
                                                                                                                                                                                                                                                                                                                               6.405A. Principles and Techniques of Management Analysis (First Half) (2) Cook W 6:10-8
                                                                                                                                                                                                                                                                                                                               $24 p. 67
6-110. Management of Directives and Correspondence Systems (2) Wylie M 6:10-8 $24
                                                                                                                                                                                                                                                                                                                                                   Reports and Forms Management (2) Lewis and Rice Th 6:10-8 $24 p. 68 Principles of Scientific Management (3) Loftus M 6:10-8:40 $36 p. 68 Work Standards and Work Measurement (2) Schneider Tu 6:10-8 $24 p. 68
   Spanish
   2.83. Basic l'unversational Spantsh (non-credit) Ponce M 6:10-8 $30 p. 32
2.84. Currersational Spantsh II (non-credit) Ponce Tu 6:10-8 $30 p. 32
2.300A. Elementary Spanish (First Half) (3) Juffe W 6:10-8:40 $36 p. 32
2.301A. Intermediate Spanish (First Half) (3) Ornstein W 6:10-8:40 $36 p. 32
2.302A. Spantsh Composition and Conversation (First Half) (2) Supervin W 6:10-8 $30
                                                                                                                                                                                                                                                                                                                              Financial and Endgetory Administration
1:12. Federal Fiscal Pearedure (2) Krueger Tu 6:10-8 $24 p. 47
6:635. Budgetary and Financial Administration (2) Grant Th 6:10-8 $24 p. 69
                                                                                                                                                                                                                                                                                                                                Personnel Administration
                                                                                                                                                                                                                                                                                                                               6-130. Public Personnel Affministration (3) Oganovic W 6:10-8:40 $36 p. 70 6-411. Position Classification (2) Laxton and Findlay Tu 6:10-8 $24 p. 71 6-418. Wage Administration (2) Lambic M 6:10-8 $24 p. 71 6-512. Employment and Piacement (2) Garnett M 6:10-8 $24 p. 71 6-518. Employee Training and Development (3] Stockard W 6:10-8:40 $36 p. 71
                                                                    MATHEMATICS AND STATISTICS
   Mothemotics
                         Beyiew of College Freshman Mathematics (non-credit) Huddleston Tu 6:10-8:40
   3-1.
                         Preparatory Mathematics for Introductory Statistics (non-credit) Suter M 6:10-8
                                                                                                                                                                                                                                                                                                                                Legal Administration
  $24 p. 37
3-100. Applied Business Algebra (3) Botts Th 6:10-8:40 $36 p. 37
3-102. College Algebra (4) Morrison M-Th 6:30-8:20 $48 p. 37
3-103. Trigonometry and Analytic Geometry (4) Stearn M-F 6:10-8 $48 p. 38
(Students may register for either half of the rourse.)
3-206A. Calculus (First Half) | 14) Kusner Tu-Th 6:10-8 $48 p. 38
3-415A. Higher Algebra (First Holf) (3) Esten W 6:10-8:40 $36 p. 38
3-502A. Differential Equations (First Hulf) (2) Instructor to be announced Tu 6:t0-8 $24
                                                                                                                                                                                                                                                                                                                                6-320, introduction to Administrative Law and Procedure (2) Johnson Tu 6:10-8 324
                                                                                                                                                                                                                                                                                                                                6-122A, Business Law (First Half] (2) Johnson M 6:10-8 $2-1 p. 72
                                                                                                                                                                                                                                                                                                                                Proculement and Property Management
                                                                                                                                                                                                                                                                                                                                6.370. Government Construction Contracts (2) Gantt W 6:10.8 $24 p. 6.638. Government Delense Conteacts (2) Silverstein Th 6:10.8 $24 p. 8-405. Prinriples of Sperifications (2) Rosenzweig Tu 6:10.8 $24 p. 91
  p. 38
3.532. Introduction to Linear Programming (3) Gass M 6:10-8:40 $36 p. 39
3.533. Introduction to Operations Research (3) Sauty W 6:10-8:40 $36 p. 39
3.538A. Methods of Mathematical Analysis (First Holf) (3) Smilly M 6:10-8:40 $36 p. 39
3.701. Introduction to Modern Pinite Mathematics (3) Chassan Til 6:10-8:40 $36 p. 40
                                                                                                                                                                                                                                                                                                                               6:352A, Principles of Accounting (First Half) (3) $36 p. 76.

Section 1 Levenberg and Marahalt M 6:10-9:45

Section 11 Rowe Tu 0:10-9:45

6:352B, Principles of Accounting (Second Half) (3) Curter Tu 6:10-9:45 $36 p. 75

6:353A, Intermediate Accounting (First Half) (3) flord M 6:10-8:40 $36 p. 75

6:261A, Elementary Fuderal Government Accounting (First Half] (2) Jenkins M 6:10-8

$24 p. 76
  Stotistics
 3-126A. Introductory Statistica (First Half] 12) $24 p. 40
Section I Purves Tu 5:10-8
Section II West Th 6:10-8
3-126B. Introductory Statistica (Second Half] 12] Ranchschwalbe Th 6:10-8 $24 p. 40
3-135. Elements of Statistical Drafting 12) Gu(dry Tu 6:10-8 $24 and $2 laborotory fee
                                                                                                                                                                                                                                                                                                                               824 p. 76
6.354. Advanced Federal Government Accounting (First Half) (2) Jenkins M 6:10.8
6.420A. Advanced Accounting—Theory and Problems (First Half) (3) Acker Tu 6:t0-8:40
836 p. 76
6.642A. Cost Accounting (First Holf) (3) Lobb and Rice W 6:10-8:40 $36 p. 77
6.645. Federal Income Taxes (3) Moyer W 6:10-8:40 $36 p. 77
6.684A. Internal Auditing (First Half) (2) Coopec M 6:10-8 $24 p. 77
                      p. 40
Machine Inbulation I 42) Knufman & 6:30-8:20 $24 p. 41
Marhine Inbulation II (2) Knufman Tu 6:30-8:20 $24 p. 41
Introduction to Arcentance Sampling (2) Houseman and Bartlett In 6:40-8 $24
  3.320.
                                                                                                                                                                                                                                                                                                                                                                                                                         SOCIAL SCIENCES
                                                                                                                                                                                                                                                                                                                                7.20(A. Principles of Economics (First Half) (3) Stocker W 6:10-8:40 $36 p. 79
7.186. Economics of l'ublic Utility Regulation (2) Gabel Tu 6:10-8 $24 p. 79
7.528. International Trade and Commercial Policy (3) Vogely W 6:10-8:40 $36 p. 80
7.548A, Reconomic Anniysis (First Half) (3) Vogely Th 6:10-8:t0 $36 p. 80
7.570A, Statistical Analysis Applied to Economic Problems (First Half) (2) Gerra Th 6:10-8
$24 p. 80
  3-380A. Principles of Statistical Analysis (First Half] (3) Stauber Tu-Th 6:16-7:30 $36
p. 41
3.385A. Elements of Statistical Methods (First Half) (2) Hurvey The 1:45-6:35 $24 p. 41 (Meets at Agricultural Research Center, Beltsville, Maryland)
3.400A. Introduction to Mathematical Statistics (First Half) (3) Weingarten Tu 6:10-8:40 $36 p. 42
3.405A. Introduction to Experimental Statistics (First Half) (2) Hendricks Th 6:10-8 $24
 3-408A, Principles of Sample Design and Analysis (First Holf) (2) Hendricks To 6:10-8
                      $24 p. 42
Sampling in Social and Economic Surreys (3) Nisselson Th 6:10-8:40 $36 p. 42
Applied Multivariate Annlysis (3) Morrison W 6:10-8:40 $36
Inventory Management Theory (3) Jorly Th 6:10-8:40 $36 p. 42
Data Processing on Electronic Computers 1—UNIVAC (2) Shinkus Tu 6:10-8 $24
                                                                                                                                                                                                                                                                                                                                                    How and Why of Stuck Investments (non-ecedit) Wolf Th 6:10-8 $24 p. 81
                                                                                                                                                                                                                                                                                                                                 Agricultural Economics
                                                                                                                                                                                                                                                                                                                                7-5. Produce Operation in Retail Food Stores (non-eredit) Hoecker and Associotes
Tu 6:10-9 $24 p. 82 (10 weeks)
7-209. Hural Social Patterns of the Agricultural Regions of the United States (3) Raper
M 6:10-8:40 $36 p. 82
7-41-14. Economics of Marketing (First Half) (2) Breimyer and Trelogan W 6:10-8 $24
 3-140.
3-565.
 3.566. Data Processing on Electronic Computers II-UNIVAC (2) Shimkus Th 6:10-8 $24
p. 43
3.567A. Data Processing on Medium-Sized Electronic Cumputers—IBM 650 (First Half) (2)
Leeds M 6:10.8 $24 p. 43
3.567B. Data Processing on Medium-Sized Electronic Computers—IBM 650 (Second Half) t2)
Leeds F 6:10.8 $24 p. 43
3.760A. Programming Techniques for a Genecal Purpose Electronic Digital Computer—Scientific
Applications—IBM 701 (First Half) t3) Occhard Hays M 6:10-8:40 $36 p. 43
1.570A. Design of Experiments in Biological Sciences (First Half) (2) Koch Tu 4:45-6:35
                                                                                                                                                                                                                                                                                                                                                     p. 82
Economies of Market Expansion (2) Walsh and Associates M 6:10-8 $24 p. 83
Production Policies and Peogeams (2) Johnson M 6:10-8 $24 p. 84
filterature of American Agricultural History (3) Rasmussen Tu 6:10-8:40 $36
                                                                                                                                                                                                                                                                                                                                T-459.
                                                                                                                                                                                                                                                                                                                                                     Regiunal Geography of Asia (3) Sheehan W 6:10-8:40 $36 p. 53
                                                                                                                                                                                                                                                                                                                                5.460.
                                                                                                                                                                                                                                                                                                                                Cooperative Extension Education

    7-535. Methods of Evaluating Educational Programs (2) Staff, Extension Research and Training Division, Federal Extension Service To be arranged $5 p. 85
    7-732. Four-II Club Programs (3) Aiton and Staff, Division 4-H Clubs, and YMW Programs To be arranged $5 p. 85

                      $24 p. 16
Theory of Sample Surveys (First Half) (2) Steinberg W 6:10-8 $24 p. 44
Non-sampling Ercora in Statistical Surveys (2) Hansen, Hurwitz, Wood Tu 6:10-8
                      $24 p. 44
Organization of Statistical Services within the Federal Government (non-recdit)
Stapp October 1, 15, 29; and November 12 p. 44 (Registration is required, but no fees are charged.)
 3.025.
                                                                                                                                                                                                                                                                                                                                                     General Psychology (3) Fitzpatrick Tu 6:10-8:40 $36 and $1 Inboratory fee p. 86 Introduction to the Sorial Sciences (2) Maitland Th 6:10-8 $24 p. 86 Conditions of Pecsuality Growth (2) Stammeyer Tu 6:10-8 $24 p. 86 Principle of Least Effect and General Semantics (2) Saunders W 7:30-9:20 $24
The following courses in Mothematics and Statistics meet at the National Institutes of Health, Rethesda, Maryhaul
3-165A. Introduction to the Calculus (First Half) (24 Geisser Th 6:10-8 $24 p. 100
3-106A. Introduction to Experimental Statistics (First Half) (2) Gehan Th 6:10-8 $24
                                                                                                                                                                                                                                                                                                                                                     p. 86
Psychology as the Modern Study of Man (2) Tagliacozzo W 6:10-8 $24 p. 87
Marriage and the Family (2) Hodges M 6:10-8 $24 p. 87
Improving Human Belations and Group Behavior (2) Bauer M 6:10-8 $24 p. 88
Human Belations in Administration (3) Ennels Th 6:10-8:40 $36 p. 65
Seminar—Change in Contemporary Cultures (2) Wilson and Dreis To be arranged
                                                        OFFICE TECHNIQUES AND OPERATIONS
                                                                                                                                                                                                                                                                                                                                 7-54t.
6-153,
  Administrative Procedures
                                                                                                                                                                                                                                                                                                                                T-730.
 1-95, Office Aids and Hasle Office Practices (non-credit) Hicka and Green Tu 6:10-8 $24 24 p. 46
1-101. Everythy Mathematics (2) Botts W 6:10-8 $24 p. 46
3-100. Applied Business Algebra (3) Botts Th 6:10-8:40 $36 p. 37
1-108. Administrative Procedure (2) Hickey Tu 6-7:50 $24 p. 46
1-201. Supervision (2) Van Dersal W 6:10-8 $24 p. 46
1-206. Essentials of Good Office Management (3) Wagner W 6:10-8:40 $36 p. 47
1-112. Federal Piscal Procedure (2) Krueger Tu 6:10-8 $24 p. 47
1-114. Federal Personnel Procedure (2) Starns Th 6:10-8 $24 p. 47
1-115. Federal Purrhasing Procedure (2) English M 6:10-8 $24 p. 47
1-116. Federal Budgetary Procedure (2) English M 6:10-8 $24 p. 47
1-117. Records Management Procedure (2) Luttrell and Lando Tu 6:10-8 $24 p. 48
1-117. Records Management Procedure (2) Luttrell and Lando Tu 6:10-8 $24 p. 48
1-118. Government Letter Writing (2) Boyd Th 6:10-8 $24 p. 49

Sheethand
                     Office Aids and Hasle Office Practices (non-credit) Hicka and Green Tu 6:10-8 $24
  4.95.
                                                                                                                                                                                                                                                                                                                                                           $24 p. 88
                                                                                                                                                                                                                                                                                                                                                                                                                                TECHNOLOGY
                                                                                                                                                                                                                                                                                                                                Engineering
                                                                                                                                                                                                                                                                                                                                                     Engineering Review for P. E. Examination (non-credit) Rixse and Vest. Th 6:10-8
                                                                                                                                                                                                                                                                                                                                8-95, Electrical Engineering Review for P. E. Examination (non-credit) Jessel and Thomas W 6:10-8 $24 p. 90
8-115A, Practical Radio and Television (First Half) (3) Hauptman Tu 6:10-8:40 $36 and $5
                                                                                                                                                                                                                                                                                                                                lahorntory fee p. 90
8-404A, Fundamentals of Ferrous Metallurgy (First Holf) (3) Willner M 6:10-8:40 $30
                                                                                                                                                                                                                                                                                                                               8-404A, Fundamentals of Ferrous Metallurgy (First Holf) (5) Willier 31 6(10-6) 40 836 pt. 90 8-405. Principles of Specifications (2) Rosenzwelg Tu 6:10-8 $24 p. 91 8-490. Patents and Inventions (2) Itelevatine W 6:10-8 $24 p. 91 8-495. Soil Mechanics (2) Coffman Th 6:10-8 $24 p. 91 8-525. Translator Electronics (3) Rubenstein W 6:10-8:40 $36 p. 91 5-535A, Elements of Fluid Mechanics (First Holf) (3) Tepper Th 6:10-8:40 $36 p. 56 Nucleur Beactures (2) Rubenstein and Schulman Tu 6:10-8 $24 p. 92
                     Review of Gregg Shorthand (Anniversary), 60-90 Words (non-credit) Stenra M-Th-6:1H-7:30 $36 p. 50
Gregg Shurthand Simplified 1 (3) Gaasterland M-Th 6:10-7:30 $30 p. 50
Gregg Shorthand Simplified II (3) Bell and Vallerea M-Th 6:10-7:30 $36 p. 50
Georg Shorthand Simplified, 60-80 Words (3) Bell and Vallerea M-Th 7:30-8:50
$36 p. 50
  Shorthand
   4.89.
                                                                                                                                                                                                                                                                                                                                 Surveying and Mapping
   4-130.

    8-218. Geodetic Surveying (3) Ellingwood M 6-8 and four Saturdays $36 and $2 inboratory fee p. 95
    8-140. Theory of Geodesy (3) Thomas F 0:10-8:40 $36 μ. 95

   1-225,
                       $36 p. 50
Gregg Shorthand, 80-100 Words (3) Wnlker M-Th 6:t0-7:30 $36 p. 50
   4-226.
                                                                                                                                                                                                                                                                                                                                 Photogrammetry
                                                                                      PHYSICAL SCIENCES
                                                                                                                                                                                                                                                                                                                                                    Introduction to Photogrammetry (2) Friedman W 6:10-8 $24 p. 95
Aerial Photographic Interpretation (31) Churchill Tu #:10-8:40 $36 p. 95
Photogrammetry I (3) Gutensoo and Southard W 6:10-9:30 $36 p. 96
Photogrammetry I (3) Hemphill M 4:10-8:40 $36 p. 54
                                                                                                                                                                                                                                                                                                                                 8-120.
  General
   5-90. Where We Stand in Science (non-credit) Ellis W 0:10-8 $24 p. 51
5-175. Descriptive Astronomy (2) Thomas Th 6:10-8 $24 p. 61
5-225A, Principles of Physical Science (First Half) (2) Pathursch W 7:10-9 $24 p. 52
  5-90.
5-175.
                                                                                                                                                                                                                                                                                                                                5-455.
                                                                                                                                                                                                                                                                                                                                Cortography
  Chemistry
                                                                                                                                                                                                                                                                                                                                                    Mathematics for Carlingraphers (2) Everett Til 6:10:8 $24 p. 96
Large Scale Maps (2) Skop M 6:10:8 $24 p. 97
                                                                                                                                                                                                                                                                                                                                8-222,
8-424.
  5-315A. Elementary Biorhemistry (First Holf) (2) Hess W 6:10-8 $24 p. 52
   Geography and Geology
  5-460, Hegional Geography of Asin (3) Sheehan W 6:10-8:40 $36 p. 53 5-453, General Geology (3) Douglass Tu 6:10-8:40 $30 μ. 53 5-455, Phulogeology (3) Hemphill M 6:10-8:40 $36 μ. 54 5-533A, Hydrology (First Half] (31 Nordenson Tu 6:10-8:40 $36 p. 54
                                                                                                                                                                                                                                                                                                                                8-320. Penril Sketching and Water Color Painting (2) Lyon M 6(10-9 $30 and $5 labora-
                                                                                                                                                                                                                                                                                                                                tory fee p. 97

8.321. Life Sketching 12) McKenna M 6:10-9 $30 and $3 inhoratory fee p. 97

8.323. Portraft Painting in thi (2) Luzzari W 6:30-9 $30 and $5 inhoratory fee p. 98

8.330.A. The Grammar of Art; Drawing and Painting (2) Chiun Tu 6:30-9 $30 and $5 inhoratory fee p. 98

8.333. Surry of Art (2) Broadley M 6:10-8 $24 p. 98
   5-330. Agricultural Meteorology (3) Springer Tu 6:10-8:40 $36 p. 56 (Meets at Weather
  Burenu)
5-415. Applied Climatology (3) Jacobs M 6:10-8:40 $36 p. 56 (Meets at Sultland, Maryland)
                                                                                                                                                                                                                                                                                                                                 Applied Arts
                                                                                                                                                                                                                                                                                                                                 8-36. Institutional Housekeeping II (non-credit) Morgan and Ord Th 6:40-8:30 $24
   5-534A, Introduction to Dynamic Meteorology (First Half) (3) Carlin Th 6:10-8:40 $30
                                                                                                                                                                                                                                                                                                                                8-55. Introduction to Interior Dergration (non-credit) Steininger Th 6:40-8:30 $24 p. 99
8-141A. Graphic Arts in the Federal Government (First Half) (2) Eysenberg, Jex, Kennedy W 11:10-8 $24 p. 99
8-28t. Landscape Design of Small Property (2) Schullhels W 7:10-9 $2t p. 99
  p. 66
5-535A, Elements of Fluid Mechanics (First Half) (3) Tepper Th 6:10-8:40 $36 p. 56
5-536A. Synoptic Meceurology (First Half) (3) Winston M 6:10-8:40 $36 p. 57 (Meeta at Suitland, Maryland)
5-538A. Weather Analysis and Forerasting (First Half) (2) Winston and Dunn W 6:10-10 $24 and $4 inboratory fee p. 67 (Meets at Suitland, Maryland)
                                                                                                                                                                                                                                                                                                                               Photogrophy
8-70. Popular Photography (non-credit) McHenry Tu 6:30-8:20 $24 p. 99
8-155. Fundamentals of flume Mavie Making (2) Houghton Th 6:10-8 $24 p. 99
8-161. Liflugraphy I—Camera (4) Novak Tu-Th 6:10-8 $48 and $6 inborntory fee p. 100
8-163. Liflography II (3) Hamm M 6:10-9 $36 p. 100 (Meets at Beltsville, Maryand)
8-165. Photocomposing I—Principles (3) Martin W 6:10-9 $36 p. 100 (Meets at Beltsville, Maryand)
8-166. Photocomposing II—Principles (3) Martin W 6:10-9 $36 p. 100 (Meets at Beltsville, Maryand)
8-167. Photocomposing II—Principles (3) Dambrowski F 6:10-9 $36 and $24 inborntory fee p. 100 (Meets at Beltsville, Maryand)
8-192. Fundamentals of Photography I (2) Cobb W 6:10-8 $24 p. 100
8-193. Practice of Photography I (2) Burnett M 0:10-8 $24 and $6 inborntory fee p. 101
8-194. Belter Pletares through Composition I (2) Miller M 6:10-8 $24 and $2 inborntory fee p. 101
8-270. Color Photography I—Monograk Color Printing (3) Rodbell Tu 6:10-8:40 $36 and $12 laboratory fee p. 402
8-272. Color Photography III—Separation Negatives for Pulor Printing (31 Radbell Th 6:10-8:40 $36 and $12 inburntory fee p. 102
8-360A. Portrait Photography (First Haff) (2) Purity Th 6:40-8 $24 and $4 laboratory fee p. 102
9-102 the Maryandella (2) Purity Th 6:40-8 $24 and $4 laboratory fee p. 102
9-103 the Maryandella (2) Purity Th 6:40-8 $24 and $4 laboratory fee p. 102
9-104 the Maryandella (2) Purity Th 6:40-8 $24 and $4 laboratory fee p. 102
9-105 the Maryandella (2) Purity Th 6:40-8 $24 and $4 laboratory fee p. 102
                                                                                                                                                                                                                                                                                                                                 Photography
   Oceonography
   5-658. Geological Oreanography (2) Bates Th 6:10-8 $24 p. 59
 The following courses in the Physical Sciences meet at the National Institutes of Health, Bathesila, Maryhant

5-100A. General Chemistry (First Half) (3) Johnson Tu. Th 6:00-7:15 $30 p. 105

5-316A. introductory Biorhemistry (First Half) (2) Harrington and Associates Tu 8-10

$24 p. 106

5-725A. Microbial Biochemistry (First Half) (2) Stadtman and Jacoby Tu 8-10 $24 p. 106

5-725A. Microbial Biochemistry (2) Maria Th 7-9 $24 p. 106

5-715. Enzyme Induction and Activation (1) Wright W 7-8 $12 p. 107

5-349A. Physical Chemistry (First Half) (2) Bradd M 6:15-8:10 $24 p. 107

5-730. Thermodynamics in Biological Systems (2) Gausser Tu 8-10 $24 p. 107

5-735. Chemical Kinetica in Biological Systems (2) Bradley W 8-10 $24 p. 107

5-633. Molecular Structuce in Biological Systems (2) Davice Th 8-10 $24 p. 108

Elementary Practical Electronics (non-credit) Bowman and Associates Tu 8-10 $24

p. 108
```

Philligraphic Houndiable (non-credit) Burnett F 8-10 \$2 p. 102

11. 108 Pentein Chemistry (2) Saroff Tu 7-9 \$24 p. 108



1958 FALL SCHEDULE OF CLASSES

